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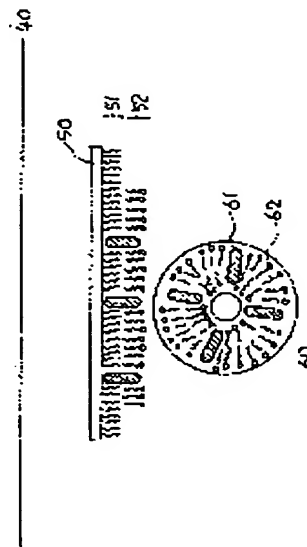
## (54) FORMATION OF PLANAR MEMBRANE

### (57)Abstract:

**PURPOSE:** To obtain a stable protein-lipid bimolecular membrane of good quality, in forming a biomembrane, by immersing a substrate having a long chain hydrocarbon group at least on one side surface thereof in a liposome suspension to form a protein-lipid bimolecular planar membrane.

**CONSTITUTION:** When a substrate 50 having a long chain hydrocarbon group at least on one side surface thereof is immersed in a suspension 60 of liposome or proteoliposome, liposome or proteoliposome is cloven not only at an air-liquid interface 40 but also at the interface with a long chain hydrocarbon group sequence molecular layer 51 to be developed to form a molecular film and a bimolecular planar membrane

of a protein molecular 61 and a lipid molecule 62 is obtained. The substrate 50 having the long chain hydrocarbon group is constituted by bonding a long chain alkylsilane or long chain alkyltitanate coupling agent or bonding a polar group of lipid having a long fatty acid chain. By this method, a stable protein-lipid bimolecular planar membrane of good quality



having a large area can be easily obtained.

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